

ABSTRACT

A reciprocating piston machine is provided having at least one membrane (1) produced from an elastomeric material and an oscillating reciprocating drive that acts on a center zone (3) of the membrane (1). Between the center zone (3) of the membrane and its circumferential edge zone (5), a deformable membrane zone (M) is provided that is deformed during the oscillating pumping movements. The reciprocating piston machine according to the invention is characterized in that the work and/or auxillary membrane (1), in its deformable membrane zone, is provided with at least two cantilever-type annular zones (7, 8) that merge into each other in a reduction of cross-section (9) of the membrane (1) and in that the membrane cross-section, starting from the reduction of cross-section (9), enlarges in the annular zones (7, 8). The membrane of the reciprocating piston engine according to the invention is very durable and functions with little noise.